

Conveyor Apparatus and Commodity Inspecting Equipment

Utilizing the Same

FIELD OF THE INVENTION

The present invention relates to a conveyor apparatus and a
5 commodity inspecting equipment equipped with such conveyor apparatus.

BACKGROUND ART

A commodity inspecting equipment such as a weighing conveyor for,
while articles are successively transported by a conveyor apparatus in a
production line, measuring the weight thereof includes, for example, a conveyor
10 apparatus of a type in which an endless flat belt or the like is trained as a
transport belt between a pair of rollers supported by a frame. One of the rollers
is a drive roller to which a driving force from a drive source such as a motor for
moving the transport belt, and as a belt for transmission of the driving force an
endless belt or the like is trained between a pulley, mounted coaxially on the
15 drive roller, and a pulley mounted on a drive shaft of the drive source.

The conveyor apparatus is coupled with a free end side of an elastic
element so that it can serve as a load to a load cell as a load detector. A fixed
end side of the elastic element is coupled with a fixed member such as a leg
member, a fixed frame, a fixed bracket or the like. The load cell is generally
20 accommodated within a housing so that it will not be affected by an external
environment such as moisture, dusts and others.

A relation in position between the conveyor apparatus and the
housing is such that since a space above the conveyor apparatus is required to be
open wide in view of articles to be weighed being placed on the conveyor
25 apparatus and since measurements would result in an error when foreign matter
falls onto the conveyor apparatus, the conveyor apparatus is generally disposed
immediately above the housing or in side by side fashion relative to the housing.
Accordingly, hitherto, the housing has an opening defined on a top surface or a
side surface, and a support member for the support of the conveyor apparatus is

10/765,162

This application is a division of serial number 10/009,832 filed December 17, 2001 now patent number 6,803,529, which is a 371 of PCT/JP01/03914 filed May 5, 2001.



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** CONTINUING DATA *****

This application is a DIV of 10/009,832 12/17/2001 PAT 6,803,529
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** FOREIGN APPLICATIONS *****

JAPAN 2000-138304 05/11/2000

JAPAN 2000-138590 05/11/2000

JAPAN 2000-196686 06/29/2000

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Foreign Priority claimed

☒ yes ☐ no35 USC 119 (e-d) conditions
met☒ yes ☐ no ☐ Met after

Allowance

Verified and
Acknowledged

Examiner's Signature

Initials

STATE OR

COUNTRY
JAPAN

SHEETS

DRAWING
19

TOTAL

CLAIMS
10

INDEPENDENT

CLAIMS
2

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TITLE

Conveyor apparatus and commodity inspecting equipment utilizing the same

FILING FEE

FEES: Authority has been given in Paper
to check and DEPOSIT ACCOUNT☒ All Fees☒ 1.16 Fees (Filing)☒ 1.17 Fees (Processing Ext. of
time)